CLAIMS

Therefore, having thus described the invention, at least the following is claimed:

1. A method for providing automated diagnostic services for a cluster computer system comprising a plurality of nodes, each of the plurality of nodes providing an application to a plurality of clients, the method comprising the steps of:

receiving information related to a plurality of drives associated with the plurality of nodes in the cluster computer system, the drives defining one or more logical volume groups;

determining whether the drives conform to a predefined condition related to failover capability based on the information related to the drives, such that the one or more logical volume groups transition in the event of a failover; and

providing a warning if the drives do not conform to the predefined condition.

2. The method of claim 1, wherein the step of receiving information related to a plurality of drives and the step of providing a warning are via a communications network.

3. The method of claim 1, wherein the step of receiving information related to a plurality of drives and the step of providing a warning are performed within the cluster computer system.

4. The method of claim 1, wherein the step of determining whether the drives conform to a predefined condition comprises determining whether the drives are unique.

5. The method of claim 1, wherein the step of determining whether the drives conform to a predefined condition comprises determining whether a plurality of drive paths are valid.

6. The method of claim 1, wherein the step of determining whether the drives conform to a predefined condition comprises determining whether the one or more logical volume groups conform to a predetermined logical volume management condition.

7. The method of claim 6, wherein the step of determining whether the one or more logical volume groups conform to a predetermined logical volume management condition comprises determining whether the logical volume numbers within the one or more logical volume groups are numbered sequentially.

8. The method of claim 1, further comprising the steps:

determining which of the plurality of drives are shared drives;

initiating a read/write test on the shared drives.

9. The method of claim 8, wherein the step of initiating a read/write test involves a nondestructively bounded pseudo random read/write test.

10. The method of claim 8, further comprising the step of providing a warning if one of the shared drives fails the read/write test.

11. The method of claim 10, further comprising the step of determining whether each of the plurality of nodes in the cluster computer system can access the shared drives.

12. The method of claim 11, further comprising the step of providing a warning if one of the plurality of nodes in the cluster computer system cannot access one of the shared drives.

13. A computer program for providing automated diagnostic services for a cluster computer system comprising a plurality of nodes, each of the plurality of nodes providing an application to a plurality of clients, the computer program comprising:

a first portion of logic configured to receive information related to a plurality of drives associated with the plurality of nodes in the cluster computer system, the drives defining one or more logical volume groups;

a second portion of logic configured to determine, based on the information related to the drives, whether the drives conform to a predefined condition related to failover capability such that the one or more logical volume groups transition in the event of a failover; and

a third portion of logic configured to provide a warning if the drives do not conform to the predefined condition.

14. The computer program of claim 13, wherein the first portion of logic is further configured receive the information related to a plurality of drives via a communications network and the third portion of logic is further configured to provide the warning via the communications network.

15. The computer program of claim 13, wherein the first, second, and third portions of logic are embodied in cluster middleware controlling the cluster computer system.

16. The computer program of claim 13, wherein the first, second, and third portions of logic are embodied in an operating system associated with each of the plurality of nodes.

17. The computer program of claim 13, wherein the second portion of logic is further configured determine whether the drives are unique.

18. The computer program of claim 13, wherein the second portion of logic is further configured to determine whether a plurality of drive paths are valid.

19. The computer program of claim 13, wherein the second portion of logic is further configured to determine whether the one or more logical volume groups conform to a predetermined logical volume management condition.

20. The computer program of claim 19, wherein the second portion of logic is further configured to determine whether the logical volume numbers within the one or more logical volume groups are numbered sequentially.

21. The computer program of claim 13, further comprising:

a fourth portion of logic configured to determine which of the plurality of drives are shared drives;

a fifth portion of logic configured to initiate a read/write test on the shared drives.

22. The computer program of claim 21, wherein the read/write test is a nondestructively bounded pseudo random read/write test.

23. The computer program of claim 21, further comprising a sixth portion of logic configured to provide a warning if one of the shared drives fails the read/write test.

24. The computer program of claim 23, further comprising a seventh portion of logic configured to determine whether each of the plurality of nodes in the cluster computer system can access the shared drives.

25. The computer program of claim 24, further comprising an eighth portion of logic configured to provide a warning if one of the plurality of nodes in the cluster computer system cannot access one of the shared drives.

26. A system for providing automated diagnostic services for a cluster computer system comprising a plurality of nodes, each of the plurality of nodes providing an application to a plurality of clients, the system comprising:

means for receiving information related to a plurality of drives associated with the plurality of nodes in the cluster computer system, the drives defining one or more logical volume groups;

means for determining, based on the information related to the drives, whether the drives conform to a predefined condition related to failover capability such that the one or more logical volume groups transition in the event of a failover; and

means for providing a warning if the drives do not conform to the predefined condition.

27. The system of claim 26, further comprising:

means for determining which of the plurality of drives are shared drives;

means for initiating a read/write test on the shared drives.

28. The system of claim 27, wherein the read/write test involves a nondestructively bounded pseudo random read/write test.

29. The system of claim 27, further comprising a means for providing a warning if one of the shared drives fails the read/write test.

30. The system of claim 29, further comprising a means for determining whether each of the plurality of nodes in the cluster computer system can access the shared drives.

31. The system of claim 30, further comprising a means for providing a warning if one of the plurality of nodes in the cluster computer system cannot access one of the shared drives.

32. A system for providing automated diagnostic services for a cluster computer system, the system comprising a computer having logic configured to:

receive information related to a plurality of drives associated with a plurality of nodes in the cluster computer system, the drives defining one or more logical volume groups;

determine, based on the information related to the drives, whether the drives conform to a predefined condition related to failover capability such that the one or more logical volume groups transition in the event of a failover; and

provide a warning if the drives do not conform to the predefined condition.

33. The system of claim 32, wherein the computers is a server.

34. The system of claim 32, wherein the logic is embodied in an operating system associated with the computer.

35. The system of claim 32, wherein the logic is embodied in cluster middleware associated with the computer.

36. The system of claim 32, wherein the computer further comprises a network interface card configured to communicate with a cluster interface.

37. The system of claim 36, further comprising one or more clients in communication with the one or more computers via the cluster interface.

38. The system of claim 32, wherein the computer further comprises a network interface configured to communicate with the cluster computer system via a communications network and wherein the information related to a plurality of drives is received via the communications network and the warning is provided to the cluster computer system via the communications network.

39. The system of claim 32, wherein the logic is further configured to determine whether a plurality of drive paths are valid.

40. The system of claim 32, wherein the logic is further configured to determine whether the one or more logical volume groups conform to a predetermined logical volume management condition.

41. The system of claim 32, wherein the logic is further configured to determine whether the logical volume numbers within the one or more logical volume groups are numbered sequentially.

42. The system of claim 32, wherein the logic is further configured to:

determine which of the plurality of drives are shared drives; and

initiate a read/write test on the shared drives.

43. The system of claim 42, wherein the logic is configured to provide a warning if one of the shared drives fails the read/write test.

44. The system of claim 43, wherein the logic is further configured to determine whether each of the plurality of nodes in the cluster computer system can access the shared drives.

45. The system of claim 44, wherein the logic is further configured to provide a warning if one of the plurality of nodes in the cluster computer system cannot access one of the shared drives.